SEQUENCE LISTING

<110> Takada Pharmaceutical Company Limited

<120> Antibody and its use

<130> G05-0070

<140> PCT/JP2004/007667

<141> 2004-05-27

<150> JP2003-151577

<151> 2003-05-28

<160> 20

<210> 1

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> immunogen

<400> 1

Trp Tyr Lys His Val Ala Ser Pro Arg Tyr His Thr Val Cys
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<210> 2

<211> 14

<212> PRT

<213> Artificial Sequence

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<223> immunogen

<400> 2

Cys His Thr Val Gly Arg Ala Ala Gly Leu Leu Met Gly Leu
5 10

<210> 3

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> immunogen

<400> 3

Cys Ala Ser Gly Leu Leu Met Gly Leu Arg Arg Ser Pro Tyr Leu Trp
5 10 15

<210> 4

<211> 23

<212> PRT

<213> Homo sapiens

<400> 4

Trp Tyr Lys His Val Ala Ser Pro Arg Tyr His Thr Val Gly Arg Ala

1 5 10 15

Ala Gly Leu Leu Met Gly Leu

20

<210> 5

<211> 30

<212> PRT

<213> Homo sapiens

<400> 5

Trp Tyr Lys His Val Ala Ser Pro Arg Tyr His Thr Val Gly Arg Ala

1 5 10 15

Ala Gly Leu Leu Met Gly Leu Arg Arg Ser Pro Tyr Leu Trp

20 25 30

<210> 6

<211> 23

<212> PRT

<213> Rattus norvegicus

<400> 6

Trp Tyr Lys His Val Ala Ser Pro Arg Tyr His Thr Val Gly Arg Ala

1 5 10 15

Ser Gly Leu Leu Met Gly Leu

20

<210> 7

<211> 30

<212> PRT

<213> Rattus norvegicus

<400> 7

Trp Tyr Lys His Val Ala Ser Pro Arg Tyr His Thr Val Gly Arg Ala
1 5 10 15

Ser Gly Leu Leu Met Gly Leu Arg Arg Ser Pro Tyr Leu Trp
20 25 30

<210> 8

<211> 23

<212> PRT

<213> Mus musculus

<400> 8

Trp Tyr Lys His Val Ala Ser Pro Arg Tyr His Thr Val Gly Arg Ala
1 5 10 15

Ser Gly Leu Leu Met Gly Leu
20

<210> 9

<211> 30

<212> PRT

<213> Mus musculus

<400> 9

Trp Tyr Lys His Val Ala Ser Pro Arg Tyr His Thr Val Gly Arg Ala
1 5 10 15

Ser Gly Leu Leu Met Gly Leu Arg Arg Ser Pro Tyr Gln Trp
20 25 30

<210> 10

<211> 23

<212> PRT

<213> Sus scrofa

<400> 10

Trp Tyr Lys His Thr Ala Ser Pro Arg Tyr His Thr Val Gly Arg Ala
1 5 10 15

Ala Gly Leu Leu Met Gly Leu
20

<210> 11

<211> 30

<212> PRT

<213> Sus scrofa

<400> 11

Trp Tyr Lys His Thr Ala Ser Pro Arg Tyr His Thr Val Gly Arg Ala
1 5 10 15

Ala Gly Leu Leu Met Gly Leu Arg Arg Ser Pro Tyr Met Trp
20 25 30

<210> 12

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> Biotin-labeled peptide

<220>

<221> MOD_RES

<222> 14

<223> Xaa means biotin-labeled Cys modified with Biotin (Long Arm) Maleimide (Vector Laboratories).

<400> 12

Trp Tyr Lys His Val Ala Ser Pro Arg Tyr His Thr Val Xaa

5 10

<210> 13

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> Biotin-labeled peptide

<220>

<221> MOD_RES

<222> 1

<223> Xaa means biotin-labeled Cys modified with Biotin (Long Arm) Maleimide (Vector Laboratories).

<400> 13

Xaa His Thr Val Gly Arg Ala Ala Gly Leu Leu Met Gly Leu

5 10

<210> 14

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Biotin-labeled peptide

<220>

<221> MOD_RES

<222> 1

<223> Xaa means biotin-labeled Cys modified with Biotin (Long Arm) Maleimide (Vector Laboratories).

<400> 14

Xaa Ala Ser Gly Leu Leu Met Gly Leu Arg Arg Ser Pro Tyr Leu Trp
5 10 15

<210> 15

<211> 328

<212> PRT

<213> Homo sapiens

<400> 15

Met Asp Asn Ala Ser Phe Ser Glu Pro Trp Pro Ala Asn Ala Ser Gly
1 5 10 15

Pro Asp Pro Ala Leu Ser Cys Ser Asn Ala Ser Thr Leu Ala Pro Leu
20 25 30

Pro Ala Pro Leu Ala Val Ala Val Pro Val Val Tyr Ala Val Ile Cys
35 40 45
Ala Val Gly Leu Ala Gly Asn Ser Ala Val Leu Tyr Val Leu Leu Arg
50 55 60
Ala Pro Arg Met Lys Thr Val Thr Asn Leu Phe Ile Leu Asn Leu Ala
65 70 75 80
Ile Ala Asp Glu Leu Phe Thr Leu Val Leu Pro Ile Asn Ile Ala Asp
85 90 95
Phe Leu Leu Arg Gln Trp Pro Phe Gly Glu Leu Met Cys Lys Leu Ile
100 105 110
Val Ala Ile Asp Gln Tyr Asn Thr Phe Ser Ser Leu Tyr Phe Leu Thr
115 120 125
Val Met Ser Ala Asp Arg Tyr Leu Val Val Leu Ala Thr Ala Glu Ser
130 135 140
Arg Arg Val Ala Gly Arg Thr Tyr Ser Ala Ala Arg Ala Val Ser Leu
145 150 155 160
Ala Val Trp Gly Ile Val Thr Leu Val Val Leu Pro Phe Ala Val Phe
165 170 175
Ala Arg Leu Asp Asp Glu Gln Gly Arg Arg Gln Cys Val Leu Val Phe
180 185 190
Pro Gln Pro Glu Ala Phe Trp Trp Arg Ala Ser Arg Leu Tyr Thr Leu
195 200 205
Val Leu Gly Phe Ala Ile Pro Val Ser Thr Ile Cys Val Leu Tyr Thr
210 215 220
Thr Leu Leu Cys Arg Leu His Ala Met Arg Leu Asp Ser His Ala Lys
225 230 235 240
Ala Leu Glu Arg Ala Lys Lys Arg Val Thr Phe Leu Val Val Ala Ile
245 250 255
Leu Ala Val Cys Leu Leu Cys Trp Thr Pro Tyr His Leu Ser Thr Val

260 265 270

Val Ala Leu Thr Thr Asp Leu Pro Gln Thr Pro Leu Val Ile Ala Ile

275 280 285

Ser Tyr Phe Ile Thr Ser Leu Ser Tyr Ala Asn Ser Cys Leu Asn Pro

290 295 300

Phe Leu Tyr Ala Phe Leu Asp Ala Ser Phe Arg Arg Asn Leu Arg Gln

305 310 315 320

Leu Ile Thr Cys Arg Ala Ala Ala

325

<210> 16

<211> 984

<212> DNA

<213> Homo sapiens

<400> 16

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ctgagctgct ccaacgcgtc gactctggcg ccgctgccgg cgccgctggc ggtggctgta 120

ccagttgtct acgcggtgat ctgcgccgtg ggtctggcgg gcaactccgc cgtgctgtac 180

gtgttgctgc gggcgccccg catgaagacc gtcaccaacc tgttcatcct caacctggcc 240

atcgccgacg agctcttcac gctggtgctg cccatcaaca tcgccgactt cctgctgcgg 300

cagtggccct tcggggagct catgtgcaag ctcatcgtgg ctatcgacca gtacaacacc 360

ttctccagcc tctacttcct caccgtcatg agcgccgacc gctacctggt ggtgttggcc 420

actgcggagt cgcgccgggt ggccggccgc acctacagcg ccgcgcgcgc ggtgagcctg 480

gccgtgtggg ggatcgtcac actcgtcgtg ctgcccttcg cagtcttcgc ccggctagac 540

gacgagcagg gccggcgcca gtgcgtgcta gtctttccgc agcccgaggc cttctggtgg 600

cgcgcgagcc gcctctacac gctcgtgctg ggcttcgcca tccccgtgtc caccatctgt 660

gtcctctata ccaccctgct gtgccggctg catgccatgc ggctggacag ccacgccaag 720

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cagacgccgc tggtcatcgc tatctcctac ttcatcacca gcctgagcta cgccaacagc 900

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ctgataactt gccgcgcggc agcc 984

<210> 17

<211> 333

<212> PRT

<213> Homo sapiens

<400> 17

Met Gln Ala Ala Gly His Pro Glu Pro Leu Asp Ser Arg Gly Ser Phe
1 5 10 15

Ser Leu Pro Thr Met Gly Ala Asn Val Ser Gln Asp Asn Gly Thr Gly
20 25 30

His Asn Ala Thr Phe Ser Glu Pro Leu Pro Phe Leu Tyr Val Leu Leu
35 40 45

Pro Ala Val Tyr Ser Gly Ile Cys Ala Val Gly Leu Thr Gly Asn Thr
50 55 60

Ala Val Ile Leu Val Ile Leu Arg Ala Pro Lys Met Lys Thr Val Thr
65 70 75 80

Asn Val Phe Ile Leu Asn Leu Ala Val Ala Asp Gly Leu Phe Thr Leu
85 90 95

Val Leu Pro Val Asn Ile Ala Glu His Leu Leu Gln Tyr Trp Pro Phe
100 105 110

Gly Glu Leu Leu Cys Lys Leu Val Leu Ala Val Asp His Tyr Asn Ile
115 120 125

Phe Ser Ser Ile Tyr Phe Leu Ala Val Met Ser Val Asp Arg Tyr Leu
130 135 140

Val Val Leu Ala Thr Val Arg Ser Arg His Met Pro Trp Arg Thr Tyr
145 150 155 160
Arg Gly Ala Lys Val Ala Ser Leu Cys Val Trp Leu Gly Val Thr Val
165 170 175
Leu Val Leu Pro Phe Phe Ser Phe Ala Gly Val Tyr Ser Asn Glu Leu
180 185 190
Gln Val Pro Ser Cys Gly Leu Ser Phe Pro Trp Pro Glu Gln Val Trp
195 200 205
Phe Lys Ala Ser Arg Val Tyr Thr Leu Val Leu Gly Phe Val Leu Pro
210 215 220
Val Cys Thr Ile Cys Val Leu Tyr Thr Asp Leu Leu Arg Arg Leu Arg
225 230 235 240
Ala Val Arg Leu Arg Ser Gly Ala Lys Ala Leu Gly Lys Ala Arg Arg
245 250 255
Lys Val Thr Val Leu Val Leu Val Val Leu Ala Val Cys Leu Leu Cys
260 265 270
Trp Thr Pro Phe His Leu Ala Ser Val Val Ala Leu Thr Thr Asp Leu
275 280 285
Pro Gln Thr Pro Leu Val Ile Ser Met Ser Tyr Val Ile Thr Ser Leu
290 295 300
Ser Tyr Ala Asn Ser Cys Leu Asn Pro Phe Leu Tyr Ala Phe Leu Asp
305 310 315 320
Asp Asn Phe Arg Lys Asn Phe Arg Ser Ile Leu Arg Cys
325 330

<210> 18

<211> 999

<212> DNA

<213> Homo sapiens

<400> 18

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atgggtgcca acgtctctca ggacaatggc actggccaca atgccacctt ctccgagcca 120

ctgccgttcc tctatgtgct cctgcccgcc gtgtactccg ggatctgtgc tgtggggctg 180

actggcaaca cggccgtcat ccttgtaatc ctaagggcgc ccaagatgaa gacggtgacc 240

aacgtgttca tcctgaacct ggccgtcgcc gacgggctct tcacgctggt actgcccgtc 300

aacatcgcgg agcacctgct gcagtactgg cccttcgggg agctgctctg caagctggtg 360

ctggccgtcg accactacaa catcttctcc agcatctact tcctagccgt gatgagcgtg 420

gaccgatacc tggtggtgct ggccaccgtg aggtcccgcc acatgccctg gcgcacctac 480

cgggggggcga aggtcgccag cctgtgtgtc tggctgggcg tcacggtcct ggttctgccc 540

ttcttctctt tcgctggcgt ctacagcaac gagctgcagg tcccaagctg tgggctgagc 600

ttcccgtggc ccgagcaggt ctggttcaag gccagccgtg tctacacgtt ggtcctgggc 660

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gacaacttcc ggaagaactt ccgcagcata ttgcggtgc 999

<210> 19

<211> 329

<212> PRT

<213> Rattus norvegicus

<400> 19

Met His Asn Leu Ser Leu Phe Glu Pro Gly Arg Gly Asn Val Ser Cys
5 10 15

Gly Gly Pro Phe Leu Gly Cys Pro Asn Glu Ser Asn Pro Ala Pro Leu

20 25 30

Pro Leu Pro Gln Pro Leu Ala Val Ala Val Pro Val Val Tyr Gly Val

35 40 45

Ile Cys Ala Val Gly Leu Ala Gly Asn Ser Ala Val Leu Tyr Val Leu

50 55 60

Leu Arg Thr Pro Arg Met Lys Thr Val Thr Asn Val Phe Ile Leu Asn

65 70 75 80

Leu Ala Ile Ala Asp Glu Leu Phe Thr Leu Val Leu Pro Ile Asn Ile

85 90 95

Ala Asp Phe Leu Leu Arg Arg Trp Pro Phe Gly Glu Val Met Cys Lys

100 105 110

Leu Ile Val Ala Val Asp Gln Tyr Asn Thr Phe Ser Ser Leu Tyr Phe

115 120 125

Leu Ala Val Met Ser Ala Asp Arg Tyr Leu Val Val Leu Ala Thr Ala

130 135 140

Glu Ser Arg Arg Val Ser Gly Arg Thr Tyr Gly Ala Ala Arg Ala Val

145 150 155 160

Ser Leu Ala Val Trp Ala Leu Val Thr Leu Val Val Leu Pro Phe Ala

165 170 175

Val Phe Ala Arg Leu Asp Glu Glu Gln Gly Arg Arg Gln Cys Val Leu

180 185 190

Val Phe Pro Gln Pro Glu Ala Phe Trp Trp Arg Ala Ser Arg Leu Tyr

195 200 205

Thr Leu Val Leu Gly Phe Ala Ile Pro Val Ser Thr Ile Cys Ala Leu

210 215 220

Tyr Ile Thr Leu Leu Cys Arg Leu Arg Ala Ile Gln Leu Asp Ser His

225 230 235 240

Ala Lys Ala Leu Asp Arg Ala Lys Lys Arg Val Thr Leu Leu Val Val

245 250 255

Ala Ile Leu Ala Val Cys Leu Leu Cys Trp Thr Pro Tyr His Leu Ser
260 265 270

Thr Ile Val Ala Leu Thr Thr Asp Leu Pro Gln Thr Pro Leu Val Ile
275 280 285

Gly Ile Ser Tyr Phe Ile Thr Ser Leu Ser Tyr Ala Asn Ser Cys Leu
290 295 300

Asn Pro Phe Leu Tyr Ala Phe Leu Asp Asp Ser Phe Arg Arg Ser Leu
305 310 315 320

Arg Gln Leu Val Ser Cys Arg Thr Ala
325

<210> 20

<211> 987

<212> DNA

<213> Rattus norvegicus

<400> 20

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gcagtgcctg tggtctacgg ggtgatctgc gcggtgggac tggcgggcaa ctccgcggtg 180

ctgtacgtac tgctgcgcac gccgcgcatg aagactgtta ccaacgtgtt cattctcaac 240

ctggctatcg cggacgagct cttcaccctc gtgctgccca tcaacatcgc ggacttcctg 300

ctgaggcgct ggcccttcgg ggaagtcatg tgcaagctca tcgtggctgt cgaccagtac 360

aacactttct ctagcctcta cttcctcgcc gtcatgagcg cagaccgcta cctggttgtc 420

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ctggacgaag agcagggtcg gcgtcagtgc gtgctggtct tcccgcagcc tgaggccttc 600

tggtggcgcg ccagccgtct gtacactcta gtgttgggct tcgccatccc ggtgtccacc 660

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aacagctgcc tcaacccttt cctctatgcc ttcctggacg acagcttccg caggagcctg 960

cggcagctgg tgtcatgccg cacagcc 987